DOCUMENT RESUME

ED 479 949 CG 032 550

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TITLE	Antisocial Male Youth: Considering Patterns of Vulnerability and Problem Behavior.
PUB DATE	2003-08-00
NOTE	21p.; Produced by the Center for Addiction and Mental Health.
AVAILABLE FROM	CAMH, Queen Street Site, 1001 Queen St. West, Toronto, Ontario, M6J 1H4 Canada. Web site: http://camh.net/.
PUB TYPE	Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	Academic Achievement; *Antisocial Behavior; *Classification; Context Effect; Emotional Problems; Family Relationship; Illegal Drug Use; *Males; Mental Health; Peer Groups
IDENTIFIERS	Student Engagement

ABSTRACT

This document contains presentation slides from a study on antisocial male youth. The study sought to identify an antisocial taxon, and to demonstrate that taxon membership would possess external validity and predict antisocial behavior correlates (low school achievement, poor family relations, and internalizing problems). The results revealed 9 taxometric indicators, based on DSM-IV Conduct Disorder indicators. The results are discussed in terms of contextual correlates, school engagement, individual achievement, peer groups, non-medical drug use, and mental health. (GCP)

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Antisocial Male Youth: Considering Patterns of Vulnerability & Problem Behavior

ED 479 949

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Antisocial Male Youth: Considering Patterns of Vulnerability & Problem Behavior

Chris Wekerle, Tracey Skilling, Edward Adlaf, Angela Paglia, Eman Leung

Centre for Addiction and Mental Health

Supported by Centre for Addiction and Mental Health, Canadian Institutes of Health Research, Social Sciences Health Research Council, Ontario Mental Health Foundation

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Antisocial Behavior (ASB)

- **Physical aggression emerges early in development with peak in preschool years**
- **Physical aggression may become more serious, with assaults, use of weapons**
- **Delinquency (official) rates have shown leveling off or slight decline in 1990's**
- **Delinquent acts peak in adolescence (age 16)**
- **Aggression can be: overt-covert; direct-indirect (relational); proactive-reactive; instrumental (goal-directed)-hostile; physical-verbal**
- **Severely ASB youth overlapping behaviors**

Introduction: Describing ASB

(1) Developmental Definitions (trajectories)

Life-course Persistent (>genetic)

vs. Adolescent-Limited (>environmental)

(2) Behavioral Definitions (subtypes)

Aggressive (Physical fighting, personality)

vs. Nonaggressive (Rule-breaking)

(2) Diagnostic Definitions (disorder)

- **Conduct Disorder (Physical fighting, Rule-breaking, Status offenses like running away)**

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Taxometric Analyses: Do categories exist?

- **Taxometric analysis can corroborate an antisocial type (latent taxon) and provide measurement precision.**

(1) Understanding stability over long time spans

- **Rates of ASB persistence and desistence**
- **Mechanism of ASB persistence and desistence**

(2) Development of Risk Index

- **Evaluate risk indicators**
- **Early detection of persistent ASB i.e., assign probability individual is a taxon member - is practical to clinician**
- **Improved targeted and early intervention**
- **Aid with practical clinical or placement decisions**

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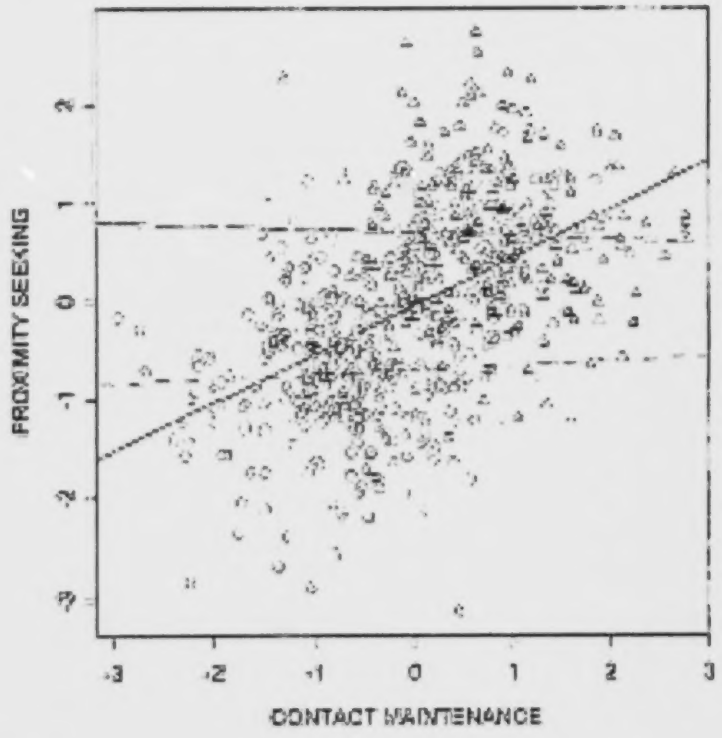
Taxometric

- **The primary goal of is to determine whether a construct represents a nonarbitrary or natural class (Meehl, 1992).**

- **Covariation between indicators is expected to be negligible within each homogenous group, but high in situation when groups are mixed (Fraley & Spieker, 2003).**



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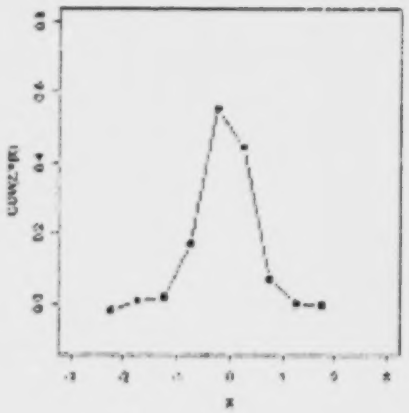
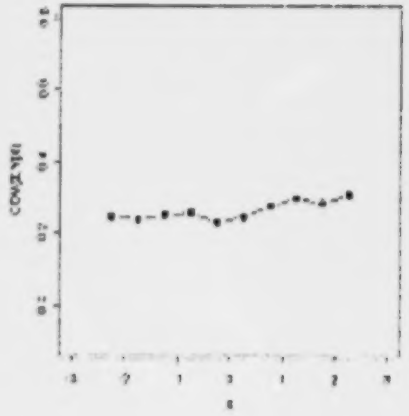
Taxometric

- **Covariance between indicators changes as a function of the relative proportion of taxon and non-taxon members in the sample.**
- **Valid taxon shows peak in distribution of covariance.**





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Hypotheses

1. **An antisocial taxon will be supported.**
2. **Taxon membership will demonstrate external validity and predict ASB correlates (low school achievement, poor family relation, internalizing problems).**

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Method

- **2001 Ontario Student Drug Use Survey**
- **2-Stage Cluster Design (school, class)**

Stratified by region [4211 students from grade 7 to OAC, from 106 schools]

- **1-hour in-class self-report questionnaire**
- **Student completion rate=71% (absenteeism, 13%; no parental consent, 16%)**

Subjects

N=2,243 - random-half sample

Taxometric Analyses on MALES only:

n=40 Taxon Members (4% of males)

(Mean age=15.35 years)

n=953 Non-Taxon Members

(Mean age= 14.98 years)

9 Taxometric Indicators: Based on DSM-IV Conduct Disorder indicators

Aggression to People

- **Often bullies (1/weekly or >, past 6 months)**
- **Physical Fight (3# or >, past year)**
- **Carried Weapon (3# or >, past year)**
- **Stealing (Car; Under or Over $50 value; 3# or >, past year)**

Destruction of Property

- **Damaged others' property (3# or >, past year)**

Deceitfulness or Theft

- **Broken into locked building (3# or >, past year)**
- **Often Lies (Inaccurate responding, gambling)**

Serious Violations of Rules

- **Run Away from home (3# or >, past year)**
- **Truant from School (3# or >, past month)**

4 Additional Indicators

In past year,

(<u>Rule-Violation</u>)

- **Taken part in gangs (3# or >)**
- **Sold marijuana, hash or other drugs (3#or>)**

(<u>Rule-Violation: Impairment</u>)

- **Betting caused problems**
- **Drinking cause problems**

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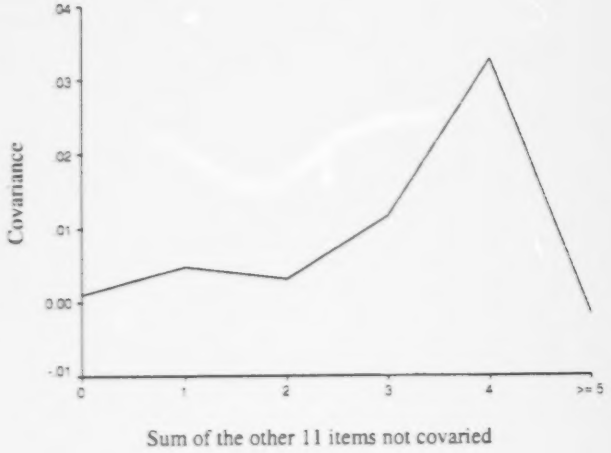
Results – Taxometric

- A Maxcov-Hitmax analysis (Meehl & Yonce, 1994, 1996) was conducted using 13 putative antisocial indicators.
- The peaked covariance gives strong evidence to the underlying Taxon.



- Each participant was assigned to the antisocial class (n=40) or its complement (n=953)

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Result – Contextual Correlates

- **Taxon members less likely to get along with parents, have parents know whereabouts, more likely thrown out of home.**

	Taxon membership (ref: complementary)	
	OR	(95% CI)
Parents were born outside Canada:		
neither (ref: both)	ns.	
one (ref: both)	ns.	
Family intactness (not; ref: intact):	ns.	
Parental SES:	ns.	
The number of times one moved:	ns.	
Get along with their parent:	2.55 (1.57, 4.122)**	
Parent knows where during free time:	1.73 (1.29, 2.31)**	
Had been thrown out of home:	27.82 (8.53, 90.74)**	

OR=odds ratio; CI=confidence interval

** $p<0.01$; * $p<0.05$; *ns*= non-significant

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Result – School Engagement

- **Taxon members less engaged in school (e.g. don't feel like part of school)**
- **While taxon members feel less safe at school (reverse coded), were less likely to worry that someone might harm them.**

	Taxon membership (ref: complementary)	
	OR	(95% CI)
School Engagement:		
elementary or secondary school: (ref: elementary)	2.84	(1.18, 6.83)**
School size:	ns.	
Class size:	ns.	
"I feel safe in my school" ®	1.50	(1.00, 2.25)*
Worried someone harm you	1.82	(1.059, 3.132)*
"I feel close to people at this school" ®	ns.	
"I feel like I am part of this school": ®	1.46	(1.03, 2.07)*
# of time changes school last 5yr	ns.	
# of time parent spoke with teacher	1.40	(1.07, 1.82)**
days of school missed due to health	ns.	

OR=odds ratio; CI=confidence interval

** $p<0.01$; * $p<0.05$; *ns*= non-significant

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Result – Individual Achievement

- **Taxon members report poorer academic achievement.**
- **More likely to have "D" to failing grades.**

	Taxon membership (ref: complementary)	
	OR	(95% CI)
Individual Achievement		
Overall marks:	2.19 (1.57, 3.06)**	
The most likely marks: 59 to below 50 (ref: 60 & above)	6.93 (3.08, 15.58)**	
Time on extra-curricular activities:	ns.	
Time each week working for pay:	1.26 (1.06, 1.50)**	

OR=odds ratio; CI=confidence interval

** *p<0.01;* * *p<0.05; ns*= non-significant

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Result – Peer Group

- **Taxon members more likely to have been victims of bullying at school.**
- **Taxon members tend to have more close friends and deviant peers (illicit drug use).**

	Taxon membership (ref: complementary)	
	OR	(95% CI)
Peer Group		
# close friends:	1.02 (1.00, 1.04)*	
# close friend's parent your parent knows:	ns.	
# people could share their problems:	ns.	
Often being bullied since September	1.32 (1.04, 1.70)**	
Best friends use illegal drugs:	2.55 (1.91, 3.42)**	

OR=odds ratio; CI=confidence interval

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Result – Non-medical Drug Use

- **Taxon members were more likely to use non-medical drugs ranging from alcohol and cigarettes to other illicit drugs.**
- **12 times > likely to inject; 15 times > likely to use cocaine**
- **Taxon members report multiple drug use.**

	Taxon membership (ref: complementary)
	OR (95% CI)
Alcohol:	4.60 (1.62, 13.04)**
Cigarettes:	3.74 (1.97, 7.10)**
Illicit drug by injection:	12.45 (2.21, 70.08)**
Cannabis:	10.00 (4.55, 21.74)**
Sniffed glue:	6.70 (2.74, 16.40)**
Sniffed solvent:	8.57 (4.00, 18.38)**
Barbiturates:	10.36 (4.07, 26.35)**
Heroin:	15.06 (5.26, 43.13)**
Methamphetamines:	9.25 (4.18, 20.50)**
Stimulant:	6.33 (2.72, 14.70)**
Tranquilizers:	7.58 (2.66, 21.63)**
LSD:	10.03 (4.75, 21.20)**
PCP	13.22 (5.05, 34.60)**
Hallucinogens:	11.37 (5.88, 22.00)**
Cocaine:	15.84 (7.23, 34.70)**
Crack:	12.65 (4.53, 35.30)**
Ecstasy:	11.15 (5.34, 23.25)**
Ice:	16.53 (2.68, 101.83)**
Used any one of the above drugs (ref: used none)	17.38 (3.77, 80.09)**
Used more than one of the above drugs (ref: used none)	52.84 (12.43, 224.67)**

OR=odds ratio; CI=confidence interval

** p<0.01; * p<0.05; ns=non-significant

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Result – Mental Health

- **Taxon members report greater depression and anxiety problems, including greater suicidal ideation**
- **But, odds ratio for mental health visits not very high**

	Taxon membership (ref: complementary)	
	OR	(95% CI)
Mental Health		
Depression:		
GHQ cut off:	4.38	(2.31, 8.32)**
CES-D Likert sum score:	1.23	(1.12, 1.36)**
Suicidal ideation:	3.44	(1.58, 7.51)**
Mental health visits:	1.13	(1.04, 1.23)**
Prescribed medication		
Anxiety only (ref: none):	ns.	
Depression only (ref: none):	12.13	(3.56, 41.36)**
Both (ref: none):	13.65	(1.21, 154.20)*

OR=odds ratio; CI=confidence interval

** p<0.01; * p<0.05; ns=non-significant

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Conclusion

- **Antisocial Taxon supported for males**
- **Antisocial Taxon teens have treatment needs in substance abuse and depression-anxiety**
- **Longitudinal and cross-sectional research on Antisocial Taxon members needed**
- **Combine epidemiological data to increase numbers of Antisocial Taxon members to validate in specific age groups (elementary)**

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